

Bulgur

This processed commodity is generally used as a staple food for all categories of programs. Bulgur is cracked, debranned, and partially precooked to lower final cooking time, reduce toughness and some of the crude fiber.

1. NUTRITIONAL VALUES (per 100 g)

These are average values, taken from the U.S.

Department of Agriculture, Agricultural Research Service (USDA:ARS) 1998 USDA Nutrient Database Laboratory Home Page, Release 12,

(<http://www.nal.usda.gov/fnic/foodcomp>) These nutrient values are provided as a guide for use in the calculation of food aid rations; users should be aware that shipments of food aid may vary from these exact values.

The values for thiamin, riboflavin, niacin, vitamin A, calcium and iron represent the minimum levels of enrichment nutrients (converted to a 100 g basis) as listed in Specifications below.

2. COMPONENTS

100% Whole Wheat

3. SPECIFICATIONS

The bulgur shall be milled from wheat of any of the classes defined in the "Official Grain Standards of the United States," for wheat except red durum wheat or mixtures of wheat of contrasting classes.

Nutrient	Amount	Unit
Water	9.0	g
Energy	342.0	Kcal
Protein	12.3	g
Total Lipid	1.3	g
Carbohydrate	75.9	g
Fiber, total dietary	18.3	g
Ash	1.5	g
Calcium	110	mg
Iron	2.90	mg
Magnesium	164	mg
Phosphorus	300	mg
Potassium	410	mg
Sodium	17.0	mg
Zinc	1.9	mg
Copper	0.3	mg
Manganese	3.0	mg
Selenium	2	mcg
Vitamin C	0	mg
Thiamin	0.44	mg
Riboflavin	0.26	mg
Niacin	3.53	mg
Pantothenic acid	1.0	mg
Vitamin B-6	0.3	mg
Folate	150	mcg
Vitamin B-12	0	mcg
Vitamin A	2205	IU
Vitamin E	0.2	mg-ATE
Vitamin D	n/a	IU
Iodine	n/a	mcg

CHEMICAL AND PHYSICAL REQUIREMENTS

ITEM	REQUIREMENT¹	
	Minimum	Maximum
Moisture	--	11.5
Protein (Nx5.7), % ²	9.3	--
Crude Fiber, % ²	--	2.3
Ash, % ²	--	3 ³
Foreign Material:		
Other grains except wheat, %	--	0.10
Material except other grains, % ⁴	--	0.10
Scorched particles (whole or pieces of kernels), %	--	0.20
Ungelatinized particles (whole or pieces of kernels), %	--	1.0
Whole processed kernels remaining on woven-wire-cloth sieve, %	--	4.0
Material that will pass through U.S. Standard No. 8 woven-wire-cloth sieve, %	80	--
Material that will pass through U.S. Standard No. 14 woven-wire-cloth sieve, %	--	18
Material that will pass through U.S. Standard No. 30 woven-wire-cloth sieve, %	--	0.9

¹ All percentages are on the basis of weight.

² These limiting factors are on a moisture-free basis.

³ Prior to calcium enrichment, Bulgur may not have an ash content exceeding 2.0% on a moisture free basis.

⁴ Including grain hulls either attached or detached. However, any hulls attached to product should be detached before inclusion in the hull fraction.

ENRICHMENT INGREDIENTS	Minimum	Maximum
Thiamine, mg/lb.	2.0	3.0
Riboflavin, mg/lb.	1.2	1.8
Niacin or niacinamide, mg/lb.	16.0	24.0
Vitamin A Palmitate, IU/lb.	10,000	12,000
Calcium (in harmless and assimilable form), mg/lb.	500	750
Iron (reduced iron, 325 mesh, to be used as the iron source), mg/lb.	13.0	26.0

(Source: USDA:FSA:PDD:EOB April, 1996. Contact 202-690-3565
<http://www.fas.usda.gov/excredits/pl480/commodities/bulgar.htm>)

4. PACKAGING

50 kg (110.23 lb.) bags made of woven polypropylene. This fabric contains an inhibitor to resist ultra-violet absorption along with an anti-skid coating.

5. SHELF LIFE

At least one year. See "Section III: Storage/Shelf Life Specifications" for more information.